

a telephone conference with Examiner Jean Bolte Fleurantin in July, 2001. Applicant affirms the election of group I and have cancelled claims 31-46 and 51-82, leaving for the Examiner's present consideration Claims 1-30 and 47-50. Reconsideration of the rejections is requested.

1. 35 U.S.C. 112 Rejection

Claims 1 and 47 were rejected under 35 U.S.C. 112, second paragraph, for allegedly being indefinite for failing to particularly point out a correlation between the types of records (i.e., the multiple operation records and the multiple entity records). Applicants respectfully disagree with this rejection for the reasons discussed below.

Claim 1 identifies specific records that are stored within a data storage device of a data processing system, according to an embodiment of the present invention. For the Examiner's convenience, Claim 1 is reproduced below:

1. A data processing system comprising a data storage device and a processor programmed to read data from, and write data to, said storage device, in which said storage device stores:
 - a) multiple operational records each storing data relating to one or more historical operation involving at least one entity, each said operation record comprising data recording the operation, and data defining a date associated with the operation; and
 - b) multiple entity records storing data indicating relationships between said entities, each said relationship being associated with a historical period of validity.

As stated in claim 1, a storage device (of a data processing system) stores: a) multiple operational records; and b) multiple entity records. These features are discussed below.

a) As stated in claim 1, each of the multiple operational records relates to one or more historical operations (e.g., a sale of 1500 liters of substance x to customer y on date z). Each historical operation involves at least one entity (e.g., substance x is a first entity, and customer y is a second entity). Thus, each entity (e.g., substance x and customer y) is involved with a historical operation (e.g., the sale of 1500 liters). Each of the multiple operational records comprises data recording the historical operation (e.g., data recording the sale of 1500 liters of the first entity, substance x, to the second entity, substance y). Each of the multiple operational records also comprises data defining a date associated with the historical operation (e.g., data defining date z).

b) As stated in claim 1, the multiple entity records store data indicating relationships between the entities. An exemplary entity record may indicate that substance x (the first entity) is a product sold to customer y (the second entity). Another exemplary entity record may indicate that customer y (the second entity) is a buyer of substance x (the first entity). As also indicated in claim 1, each of the relationships are associated with a historical period of validity (e.g., January 1, 1999 - December 31, 1999). The historical period of validity may indicate, for example, that substance x was sold only between specific dates, or that customer y was a customer only between specific dates.

Based on the above discussion, Applicants believe that there is a clear correlation between the operation records and the entity records of Claim 1. Accordingly, Applicants respectfully request that the 35 U.S.C. 112, second paragraph, rejection of Claim 1 be withdrawn.

The features of claim 47 are similar to the features of Claim 1. Applicants respectfully request that the 35 U.S.C. 112, second paragraph, rejection of Claim 47 be withdrawn for the same reasons discussed above in connection with Claim 1.

2. 35 U.S.C. 103 Rejection

Claims 1-30 and 47-50 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over U.S. Patent No. 5,675,779 to Doktor. Applicants respectfully disagree with this rejection for the following reasons.

It is admitted in the Office Action that “Doktor does not explicitly indicate ... each relationship being associated with a historical period of validity.” *See Office Action, page 4, lines 7 -8.* As stated in the specification, a period of validity is representative of when an association (i.e., relationship) was formed and when an association ceased to exist. *See Specification, page 18, lines 15 - 16.*

In the Office Action, it is asserted that this feature of “each relationship being associated with a historical period of validity” is obvious in view of lines 4-7 of Doktors’ Abstract, which states that “[t]he set of entities and relationships may be expanded at any time during the life of the system without reprogramming or compiling computer code and without disrupting concurrent use of the system.” *See Office Action, page 4, lines 9 - 12.* Applicants respectfully disagree with this assertion. As mentioned above, a “historical period of validity” represents the period of time that a relationship is valid (i.e., the period defined by when a relationship was formed and when it ceased to exist). Line 4-7 of Doktor’s Abstract merely suggests that additional entities and relationships can be added at any time without causing disruptions to the system. This clearly **does not teach** that each relationship between entities is associated with a period of validity (which identifies **when** the relationship was formed and ceased to exist), as required by Claim 1.

In the Office Action, it is also asserted that this feature of each relationship being associated with a historical period of validity" is obvious in view of column 5, lines 58-61 of Doktor, which teaches that a relationship may be implied if a second key number in a second relational table is matched by a corresponding key number in a first relational table. *See Office Action, page 4, line 12 - page 5, line 2.* Applicants respectfully disagree with this assertion. Column 5, lines 58-61 of Doktor merely states that relationships may be implied if key numbers in two separate tables match one another. In the specific example provided in Doktor, if first a key number in a Names-Table (that lists names of people paired with key numbers) matches a second key number in a Car-Table (that lists vehicle identification numbers paired with key number), then a relationship can be implied (e.g., that a car listed in the Car-Table is owned by a person listed in the Names-Table). This merely teaches that relationships can be implied. This clearly **does not teach** that each relationship between entities is associated with an historical period of validity that identifies when the relationship is valid, as required by Claim 1.

In the Office Action, it is also asserted that:

it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to modify the teachings of Doktor with the step of each said relationship being associated with a historical period of validity. This modification would allow the teachings of Doktor to provide a database system which is capable of storing voluminous amount of information sifting through the information at high speed and is at the same time easily expandable or restructurable to take on new forms of entities and relationships.

See Office Action, page 4, line 15 - page 5, line 2.

Applicants respectfully disagree with the above assertion. First of all, the above assertion is that adding a period of validity to each relationship in Doktor will provide a database system capable of enhanced storing, sifting, speed, expandability and resturcureability. Regardless of whether or not this assertion is true,

this does not make it obvious to add a period of validity to each relationship in Doktor. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992). Doktor does not make any suggestion that a period of validity should be associated with each relationship between entities. Applicant further objects to the Examiner effectively taking judicial notice of features not disclosed in Doktor and requests a reference be cited. MPEP §2144.03.

An advantage of the present invention, as compared to Doktor, is now presented by way of an example. Image that, in the future, the Trademark Office was established as a new entity, separate from the Patent Office. The data as represented by Doktor would then contain recent data relating to the Trademark Office, recent data relating to the Patent Office without Trademarks, and older data relating to the Patent and Trademark Office. Doktor does not address the problem of how to get an intelligent answer when one wants to know something historical about Trade Marks (or Patents) bridging the period where the Trademark office was formed. The present invention is capable of doing so.

For at least the reasons discussed above, Applicants respectfully request that the 35 U.S.C. 103(a) rejection of Claim 1 be withdrawn.

Claims 2-30 depend from and add additional features to Claim 1. For at least the reasons discussed above, in connection with Claim 1, Applicants respectfully request that the 35 U.S.C. 103(a) rejection of Claims 2-30 be withdrawn.

Independent Claim 47 includes the features similar to those features of Claim 1 discussed above. Claims 48-50 depend from and add additional features to Claim 47. For at least the reasons discussed above, in connection with Claim 1, Applicants respectfully request that the 35 U.S.C. 103(a) rejection of Claims 47-50 be withdrawn.

Conclusion

In light of the above, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable. Reconsideration and allowance of all claims is, therefore, respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

Enclosed is a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond up to and including December 31, 2001.

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

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